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ABSTRACT

The learning needs of older adults living in rural Tasmania, Australia, and the potential of online technologies to foster local literacy and community well-being were examined. The study used a qualitative inquiry strategy that included visits to three sites to investigate the literacy and numeracy implications of senior citizens' use of online technology. The sites were located in southern, central, and northeastern Tasmania. Local literacy program officials and practitioners were interviewed, and a questionnaire was administered to the online centers' users. The study established that access to online technology gives older rural people opportunities to improve their communication skills, develop a new awareness of their potential as learners, and engage in self-development. The following barriers to older learners' access to computers were identified: transport and access costs; attitudinal factors that may be related to limited literacy practices in a community; limited literacy skills; and lack of confidence. The positive outcomes resulting from online interaction included extension of social practices, including literacy and numeracy practices. It was concluded that the networks formed through the use of online access centers and interaction with online technology were suggested to be a crucial element of social capital. (The bibliography lists 36 references. The survey instrument is appended.) (MN)

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Adult Literacy and Numeracy Australian Research Consortium
ALNARC

Seniors Online

Online literacy and learning by senior citizens in rural centres

Pat Millar & Ian Falk

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Tasmanian Centre of ALNARC
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Contents

Chapter 1:	**Introduction**	**1**
1.1	The project	1
1.2	Background	1
1.3	Online access in rural Tasmania	2
1.4	Goals	3
1.5	Summary	3
Chapter 2:	**Literature Review**	**5**
2.1	Literature review	5
2.2	Summary	7
Chapter 3:	**The Research**	**9**
3.1	Methodology	9
3.2	Sites	9
	Sheeplands	9
	Riverlands	10
	Mountainlands	10
3.3	Data collection	11
3.4	Summary	11

Chapter 4: The Results **13**

4.1 Access to computers and the Internet for rural people over 55 13

4.2 Literacy and numeracy aspects of over-55s' use of computers 16

4.3 Effects of over-55s' interaction with the technology 18

4.4 Implications of senior citizens' use of online learning for community sustainability, training, and lifelong learning 18

4.5 Summary 20

Chapter 5: Conclusions **21**

References **23**

Appendix: Survey Form **25**

Chapter 1: Introduction

1.1 The project

This project forms part of a national research project investigating how literacy can best be provided for groups with special needs. The research was conducted in 1999 by the Tasmanian centre of the Adult Literacy and Numeracy Australian Research Consortium (ALNARC) with funding from the Australian National Training Authority (ANTA) and the Department of Education, Training and Youth Affairs (DETYA). It focuses on the learning needs of older rural Tasmanians and the potential of online technologies to foster local literacies and community well being.

1.2 Background

In rural areas a perception persists that trends and developments in the era of globalisation and information and communications technology are bringing about an impoverishment of standard of living and quality of life for non-metropolitan Australians. On the other hand, information and communications technologies are often seen as the solution to many of the problems facing people in rural areas (Bruce 1998).

Membership of more than one equity group increases disadvantage significantly. Features of rural centres in Tasmania include an ageing population, with women outnumbering men (Australian Bureau of Statistics 1999), many people with limited literacy skills due to interrupted or curtailed formal schooling (Crombie 1999), or with redundant skills due to the disappearance of traditional rural jobs. Rural centres have a low per capita income, and a high proportion of welfare recipients (Australian Bureau of Statistics 1995). There is limited local employment availability and high unemployment (Australian Bureau of Statistics 1995). Participation in post-school education and training in rural Tasmania is lower than in metropolitan Tasmania (National Centre for Vocational Education Research 1997).

There may be considerable potential benefits in information and communications technology for rural communities, for community sustainability after a period of enduring economic difficulties, and for literacy and learning implications for all people, including older people.

Across the developed world, use of the Internet is increasing exponentially. In the United States, seniors are the fastest growing

demographic group on the Internet (Holmquist & Juricek 1994; Wilcox 1995; Flynn 1996; Lensch 1997). Australian seniors too are adapting to the new technology in increasing numbers (Booth 1998). Statistics show that 10.5% of Australians aged 55 and over use a computer. Tasmania, however, has the lowest rate of over-55s using computers, with 8.5% (Australian Bureau of Statistics 1999).

Tasmania has the most decentralised population of all states in Australia, with the lowest percentages of its population living in its capital city. In 1993, Tasmania had 41% of its population living in Hobart, while the national average was 63.4% (Australian Bureau of Statistics 1995). Approximately 30% of its population live in regional cities and towns, with the remaining 30% living in rural localities (Australian Bureau of Statistics 1999). This wide dispersal of people across large and small towns in a regional/rural classification increases the cost and complexity of delivering services (Tasmanian Government 1999). Tasmania's population is ageing, with a median age of 34 years in 1996 compared to 32 years in 1991, and it is expected to become the state with the oldest average age early in the twenty-first century (Australian Bureau of Statistics 1999).

Access to the Internet is much easier for those living in major cities. Rural people remain information-poorer than their urban counterparts. Costs are higher, with the telephone cost in some rural areas still being at STD rates.

1.3 Online access in rural Tasmania

The Tasmanian Communities Online Project, set up by the state government in 1998 with funding assistance from the federal government's Networking the Nation project, provides Community Online Access Centres in towns, large and small, across Tasmania. The statistics show exciting development (Tasmanian Communities Online Project 2000). As of February 1st, 2000 there are 47 Online Access Centres operating in Tasmania. Approximately 178,800 Tasmanians have access to a centre in their community. This represents about 50% of Tasmanians living outside Hobart. (Centres are not established in the Hobart metropolitan area.) The approximately 17,550 registered users of the centres cover the full range of ages and socio-economic groups.

Online Access Centres are community managed facilities. The centres are usually located in a library or school annex, with anything up to six computers and ancillary equipment. Funding for the centres dips

sharply in the second year, as an encouragement to communities, having been given a taste of the technology, to strive to be viable as eventual self-funded centres. Volunteers do much of the work, usually after doing some training. During their first year Online Access Centres offer free use of computers and a range of software, free one-on-one computer and Internet training, free personal email accounts, and development of both business and community web sites. In their second year centre management committees have the task of raising income through networks with local business and community groups. Some centres introduce a small user charge.

Across the state, 1589 free training courses at the centres have introduced 6,735 people to basic computer and Internet training. People are able to do certain training and distance education online at the centres, through partnerships with TAFE Tasmania. Patrons of some centres have enrolled in and accessed courses from the University of the Third Age.

86% of user time is for Internet access and 52% of Internet time is related to communication, mainly through e-mail and chat rooms (Tasmanian Communities Online Project 2000). Since the Tasmanian Communities Online Project involves a population which is largely rural and ageing, the literacy implications of this online interaction may be considerable.

1.4 Goals

The Tasmanian ALNARC project Seniors Online aimed:

1. to investigate access to computers, the Internet, for rural people over 55;
2. to investigate literacy and numeracy aspects of over-55s using computers;
3. to investigate the effects of their interaction with the technology;
4. to consider implications of senior citizens' use of online learning for community sustainability, training, and lifelong learning.

1.5 Summary

Information and communications technologies are often seen as the solution to many of the problems facing people in rural areas. The Tasmanian Communities Online Project provides community Online Access Centres across Tasmania. The literacy implications of this online interaction may be considerable.

This project investigated access to the Internet for rural people over 55 and the literacy and numeracy aspects of that access. It also considered the effects of their interaction with the technology and the implications for community sustainability, training, and lifelong learning.

Chapter 2: Literature Review

2.1 Literature review

Literacy is a social practice integral to people's participation in a range of cultural groups, each with its own set of literacy practices (Fairclough 1989; Gee 1999). Literacy practices vary according to the range of contexts in which individuals participate, with each context requiring different ways of behaving and interacting (Gee 1999).

People with poor information processing skills appear to participate less in community activities, and have difficulty coping with instructions and forms (Crombie 1999). Australia's first large scale, comprehensive survey of literacy and numeracy skills (Australian Bureau of Statistics 1996) confirmed that age is a good predictor of skill levels: "the older you are, the lower your literacy and numeracy skills are likely to be" (Crombie 1999). Some of the skill decline may be due to disability, but most of it is likely to have a historical explanation.

> *Educational attainment is one of the strongest predictors of literacy. More than half of those aged 55-74 left school before completion, for a variety of reasons.* (Crombie 1999)

Older people who are active and learning contribute directly to society, and also indirectly by easing the economic cost of health care and associated services (Lensch 1997; Siegel 1999).

In Canada, the University of Regina's Older Adults and Learning Technologies Project (1997) noted that the majority of older Internet users were drawn to computers to enrich their lives through learning and contact with others. In Australia, two University of the Third Age pilot courses were offered through the Internet to reach out to isolated older people. The pilot trial involved a relatively high proportion of participants with minimal formal education backgrounds, although all were Internet users, and the evaluative study offered a positive picture of older persons' preparedness to engage with new technologies to improve their quality of life (Swindell & Vassella 1999).

There is a growing amount of research evidence to suggest that the integration of information technology into learning can empower learners (Gregoire, Bracewell & Laferriere 1996; Todd 1998). Colman (1999) identified barriers to the use of the Internet in Adult Literacy and Basic

Education (ALBE) programs in Tasmania. Students must first have a degree of computer literacy enabled by reading and writing skills. A major barrier for distance literacy teaching in rural areas is access to computers. Lack of confidence is a further barrier.

Networks formed through the use of information and communications technology, and through the use of Online Access Centres and the community effort required to keep them viable, may be an important element in accruing social capital. Intergenerational programs involving youth and seniors boost public relations for local schools, tap older adults' talents and provide them with part-time work (Holmquist & Juricek 1994). Local initiatives involving information and communications technology may reduce the negative impact of change on rural communities (Bruce 1998; Grace 1998; Simon 1998).

Older users' difficulties in learning to interact with the technology include unsteady hands when moving the mouse (Lensch 1997). Navigation around web sites causes difficulty at first. While the World Wide Web is still essentially a print medium (The Media Report 1999), there is an absence of linearity in texts on the Internet, and authorial reliability is more problematic than in the print medium (Moore 1996; Todd 1998). An important feature of digital texts is their radical interactiveness.

> *They break down the reader-writer distinction. Because the electronic text is ... both creator-controlled and reader-controlled, practices of reading and writing undergo profound transformation. Readers can control the size, shape and scale of screen-print, altering its typography, its readability, its illumination. They can add or delete, ... rearrange paragraphs before saving and printing it. [It is] infinitely flexible and open to manipulation.*
>
> (Lankshear & Peters 1995, p. 28.)

An iconic and direct manipulation interface requires its user to understand its symbol system and to be able to predict reliably the consequences of certain actions the user might need to take – how to scroll, for example, to bring additional text into view (Kaplan 1995). Central to successful interaction with information technology is the development of critical literacies:

> *...developing the skills needed so that [users] are able to look critically at information and to question and challenge the words of ideas on the Net; are able to understand and analyze the ways*

> *information works to empower some and exclude others; and have the capability of managing and effectively utilizing the quantities of information they confront.* (Todd 1998, p.16)

Benefits are often immediately apparent (Wilcox 1995). The Internet is inherently a very social medium (The Media Report 1999). The opportunity to socialise with other net users and to get information about a wide range of topics is perceived by many regular users as having a positive effect on their general levels of motivation and health (Noer 1995; Post 1996). A growing variety of senior sites involving health care, retirement planning, government services, computer support groups and others (Booth 1998) is making access to the Internet more attractive to older people.

2.2 Summary

Research over the past decade shows that integration of information technology into learning can empower learners, but users must first have a degree of computer literacy which is enabled by reading and writing skills. Educational attainment is one of the strongest predictors of literacy, and age is another. Older people are prepared to engage with new technologies to improve their quality of life. A growing variety of senior sites makes the Internet more attractive to them. While the Internet remains essentially a print medium, it is highly interactive.

Chapter 3: The Research

3.1 Methodology

This study used a qualitative inquiry strategy. The principles of naturalistic inquiry (Lincoln & Guba 1985) form the basis of its methodology. This is a discovery-oriented approach, non-manipulative and non-controlling, with no predetermined constraints on outcomes (Patton 1990). In addition to interviews, a questionnaire was developed with which to survey users of online centres.

3.2 Sites

A consultation was held with an advisory group consisting of a representative of an adult literacy program in TAFE, a local council community development officer, a community options services coordinator, the secretary of the National Seniors' Association (Hobart Branch) Inc., the project manager and a project officer of the Tasmanian Communities Online Project, and five coordinators of rural Online Access Centres. As a result, three main research sites were selected in order to investigate the literacy and numeracy implications of senior citizens' use of online technology. These sites will be referred to in this report as Riverlands, Sheeplands, and Mountainlands. They are located in southern, central, and northeastern parts of Tasmania.

Sheeplands

The range of literacy practices available in a locality is affected by geography, population, a range of economic and other roles people play, and by history (Anstey & Bull 1999). Sheeplands' location in central Tasmania once made it a hub of transport and travel activity and the town has a large number of treasured historical buildings from that period. In modern times the relevance of the town to transport and travel has declined, and in the late 1980s, the main highway was diverted to bypass the town. This has left Sheeplands as something of an enclave, a town that looks back rather than forward.

The pastoral industry once provided the area around Sheeplands with comfortable lifestyles for owners and jobs for others. Times are hard now and some pastoralists are diversifying into other areas, such as manufacturing knitwear, or running accommodation and hospitality on the

farm, or they or their wives take on second jobs. Others are struggling. The town has a population of around 600, but as an administrative and service centre for a wide area the catchment population is around 2000. The local economy has not been helped by a decade of below-average rainfall. This has also impacted on recreational activity, as the town lake has dried up. A large number of properties are for sale. Some have been on the market for several years.

Riverlands

Nearer to Hobart and with access to a greater range of services, the rural centre of Riverlands has a population of around 2000. Rainfall is better here and agriculture sees a future in specialist produce, much of it for export to the mainland and overseas. Salmon farming, vineyards and horticulture are prospering. The community is very supportive of an annual Taste of Riverlands fair which features local produce and which attracts many visitors from other parts of Tasmania. There is a large range of recreational activity available in the area, much of it associated with the river and the nearby sea.

Mountainlands

Mountainlands is coming to terms with changing forestry industry practices. Its other industries are coal mining and sheep and cattle farming, none of which are presently making much profit. The area is declining in population, particularly in younger age groups. The town now has 600 inhabitants and population outside the town boundaries is thin. A few years ago the small hospital was under threat of closure and the community rallied in protest. The town is half an hour's drive from pretty coastal centres but fewer drivers stop in Mountainlands these days. Infrastructure is declining. Parts of Mountainlands have a neglected look. A very limited range of recreational activity exists in the town.

In all three centres tourism development is seen as crucial for the future, as the regions are picturesque and have historical interest. But many of the people living in these centres fit the typical rural battler image. As services decline in their areas, the local people perceive a widening gap between their standard of living and that of metropolitan Australians.

3.3 Data Collection

A range of data was collected and examined.

1. Online access centre data was obtained from interview transcripts and notes from discussions with:
   - the Tasmanian Communities Online Project Manager and a Project Officer,
   - Online Access Centre coordinators from the three sites,
   - two volunteers from each of the three sites,
   - three computer users from each of the sites,
   - a coordinator and a volunteer from each of five other Online Access Centres, and informal discussion with computer users at those centres.
2. Survey data were obtained from circulation through the three sites of 300 questionnaires, approved by the University of Tasmania Ethics Committee. Coordinators and volunteers were asked to request older adult users to complete the questionnaires. The return rate was 25%. A total of 77 surveys were completed – 23 from Sheeplands, 29 from Riverlands, and 25 from Mountainlands.

3.4 Summary

Three main research sites were selected in order to investigate the literacy and numeracy implications of senior citizens' use of online technology. The range of literacy practices evident in these localities is affected by location, population, the economic and other roles people play, and by history. Services have declined in these areas, and the inhabitants perceive a widening gap between their standard of living and that of urban Australians.

A range of data was collected and examined. These data came from interviews about and at Online Access Centres, and from responses to a survey.

Chapter 4: The Results

4.1 Access to computers and the Internet for rural people over 55

Interviews were conducted with the Manager and a Project Officer of the Tasmanian Communities Online Project, with coordinators of each of the three sites, with two volunteers from each site, and with three regular users over 55 years of age from each site. Interviews were also conducted with the coordinator, one volunteer, and at least one regular user over 55 years of age, from each of five other rural online centres. Three hundred survey forms were circulated among older users of the centres at Sheeplands, Riverlands and Mountainlands. Seventy-seven surveys were completed and returned – 23 from Sheeplands, 29 from Riverlands, and 25 from Mountainlands.

- Interviews and surveys indicated that all these people believed the centres were playing a positive role in allowing access to computers and the Internet for rural people over 55.

Many users said they could not afford a computer of their own. There is a public access computer (with Internet) at the library in all three towns. At Riverlands and Sheeplands there are public access computers at the Service Tasmania shops. These are often in use and there is no one available to assist users with difficulties in the technology. The Online Access Centres increase access to computers and the Internet.

- Interviews and surveys also indicated that older people's access to online centre services depends on certain practical or attitudinal factors.

Practical factors mostly involve lack of transport. Sheeplands and Mountainlands have no local bus service. Older people living in surrounding hamlets or on farms depend on other people to bring them in to the centres. Riverlands has a bus service, but some older people do not live on its route.

Access to the Internet for older beginners depends also on a degree of support. A Riverlands man in his 60s who still runs his own agriculture and stock business participated in a small Introduction to Computers class, but could not keep up with the class because of impaired hand-eye

coordination. He was given informal tutorials to catch up. Skilled volunteers' assistance is invaluable in cases like this, but some volunteers at all centres do not have advanced skills and help out at the centres in a supervisory role only. Users must sometimes fend for themselves. Computer support organisations like SeniorLink Tasmania offer an important information and help service for older computer users, but people who do not have their own computers are unlikely to join. Only one user out of fifteen interviewed at the three sites and five other online centres was a member of SeniorLink.

Attitudinal factors affecting older people's access to the services of online centres may be influenced by rural values. The work ethic remains strong in rural centres. Sitting at a computer may be in conflict with some older rural people's perception of useful activity. Lack of confidence is another major barrier which is sometimes associated with limited literacy skills. Older people in the three sites had fewer years of formal education than is the norm today. The number of seniors who are regular users at the centres drops sharply after age 70.

The centre at Mountainlands has been proactive in this context. Four hours are reserved for seniors every Tuesday, and the session, run by two over-55 volunteers, is well attended. A 'club' atmosphere prevails. People make tea and coffee and exchange news. They feel relaxed in the environment and like being tutored by other seniors. On the Internet they enjoy playing card games and having snippets of chat with people of all ages from all over the world. At first some found the idea of this somewhat intimidating, but they quickly took it in their stride and enjoy the random exchanges. Other preferred activities are looking up genealogy sites and 'cross-over' sites from TV programs, especially gardening ones. One of the volunteers said: "It's opened up our minds to the world. Who would have thought the world could come to Mountainlands!" Another senior said that for him, travelling the Web was a replacement for actual travel, because his life was physically and financially restricted.

Sheeplands' Online Access Centre draws its over-55 user group not only from the town, but also from smaller towns and farms in the area. The group is gradually increasing, but had slow beginnings. Some literate older people still decline to try out the centre. "It's all right for people who've got nothing better to do," was one comment. When the community newspaper published the online centre's web site information on Sheeplands, historical discrepancies were pointed out by an older local

history buff in a letter to the editor, but the subsequent invitation from the online centre coordinator to help remove errors from the web site was not taken up. A degree of suspicion and disparagement towards technology remains entrenched in Sheeplands.

When the president of the local Anglican Ladies' Guild became a user at the centre, she said she did not want to be left behind by progress, and other older women professed interest in forming a seniors' group to learn about the technology. Information and familiarisation sessions for over-55s, held during Seniors' Week and Adult Learners' Week in 1999, were well attended.

Riverlands older people quickly took to the Internet. The coordinator at the centre here said:

> *There is a parochial element in this town, but on the whole people are open-minded and will give new things a chance. The older people here so far don't want a separate session set aside. Our volunteers get on well with the older people. Maybe that's why we don't seem to need a seniors' session.*

Riverlands has a strong management committee representative of a range of community sectors, including adult literacy, IT and training, hospitality, small business, and an economic development officer from the local government authority. The centre makes a feature of this representation on its website. The centre appears to function smoothly. Older interviewees said they enjoyed the mental stimulation offered by the centre. One man said:

> *This place is just what the doctor ordered. I have arthritis, I don't get around that much any more. I come here once a week. I send emails to my sister in England. I do a lot of checking of news sites, ABC News Radio and Radio National on the Internet. I get totally absorbed.*

4.2 Literacy and numeracy aspects of rural over-55s' use of computers

- 78% of survey respondents (57 people) reported a belief that their general communication skills were improving as a result of their online experience

The majority (65 people) said they use computers mainly for email.

All 77 respondents said they had difficulty at first, and 20% (15 people) continue to have difficulty with computer vocabulary. The majority (60 people) reported needing some continuing help in contextualising their existing knowledge and skills in literacy in an online learning environment.

Learning new computer literacy skills (such as how to navigate around web sites) resulted in frustration for some. A Riverlands man said:

> *It drives you mad sometimes. You look up something, use Yahoo for instance, and you get stuff come up that's nothing to do with what you want. I find it hard to ask the right words.*

Older users like to be able to work at their own pace to develop the skills, knowledge and understandings to navigate texts and to be critical users of the medium. Many agreed they learn best in peer-group sessions. A Mountainlands woman said:

> *I had trouble with one person who was teaching me. He used to confuse me, showing me two or three ways of doing something on the computer. Using 'control' and the space bar, things like that. But when I came to seniors' session, they showed me how by using just the menu, and I found that easier. Maybe I'll learn the short cuts later on.*

The biggest difficulty reported by interviewees arises from the lack of "straight-forward" instruction manuals available for the older person to understand computer jargon. One man around 70, a Sheeplands farmer, wanted such a manual to take home with him after his first session, which he terminated after a quarter of an hour. He said this was the way he preferred to learn, "by the book". The centre did not have any manuals, and the volunteer explained that published work on the technology quickly becomes obsolescent. The user was not impressed. He said his generation values information in book form, and he thought that if information was valuable it should be in book form. As a farmer he had learnt many farming skills "hands on", but he would have preferred an

instruction manual when it came to computers. In this particular case, age and lack of self-confidence with the technology may have been barriers to acquiring computer literacy, which conventional literacy skills may have helped surmount.

- The survey responses show that as a result of online activity, participants had increased confidence in both literacy and numeracy skills. People claiming to have "improved their communication skills", "improved their spelling ability", and to have become "more critical of what they read" also perceived themselves as feeling "more confident using numbers".

- All interviewees and survey respondents reported that they had mastered the new literacy practice to the extent of being able to use the technology to further other interests. These interests included communicating with family members and friends, hobbies, local heritage and University of the Third Age.

Seniors at Riverlands were given assistance to record and publish local and family history. A group of seniors at Sheeplands was creating a cemetery database to preserve local history information and to help visitors locate old family graves. Seniors at Sheeplands were also contributing to the publication of the local newspaper.

Interviewees and respondents indicated a general belief that the new computer literacy practices had energised existing literacy practices.

Riverlands is a rural centre in an area of relatively large population. It is situated on a major road and is well serviced by bus routes. There is a variety of economic activity. The community there is constantly interacting with a variety of people, including significant numbers of tourists. The literacy practices of Riverlands people is enhanced by these factors. On the other hand, Sheeplands and Mountainlands, and the areas nearby, have thinner populations, are more often than not driven past by travellers, and have no local transport infrastructure. Many traditional local industries are in decline.

Cultural diversity is not a feature of life in rural Tasmania. Anstey and Bull (1999) point out that:

> *...in a relatively static or conservative community language practices can be used to maintain the status quo, whereas in dynamic communities literacy practices can be used powerfully to inform and change the community.*

The different characteristics of the three communities (Riverlands, Mountainlands, and Sheeplands) provide their inhabitants with differing literacy practices and may predispose them to a greater or lesser degree towards acceptance of and interaction with new technologies.

4.3 Effects of over-55s' interaction with the technology

- Positive outcomes as a result of online interaction coincide with positive experiences in a variety of social practices, including literacy and numeracy practices.

Those who felt they had mastered the basic skills of online interaction also believed they were experiencing positive outcomes with regard to associated activities, for example, serving as members of centre management committees, or helping the centre produce a community newspaper, or acting as a volunteer at the centre.

- 54% of respondents (42 people) said they felt more confident as a person as a result of the online experience.
- 83% (64 people) reported feeling more connected to the world, and 54% (42 people) agreed they participated more in community activities.
- 38% of respondents (29 people) thought that the online experience opened up opportunities to develop their employability.

One Riverlands man in his late 50s said his successful application for part-time work was in large part due to the basic computer skills he acquired at the online centre.

4.4 Implications of senior citizens' use of online learning for community sustainability, training, and lifelong learning

The project's outcomes support the view that information and communications technology provides a range of literacy practices among over-55s in rural centres. There is evidence that these people have gained a new awareness of their potential as learners. They are using the Internet for self-development. They are more comfortable with the post-compulsory learning environment as a result of their online interaction. A majority of people claiming positive outcomes for health, confidence, and participation in community activities, were also involved in some formal learning activity. Most of these activities were short courses and hobby classes. Six retired people were doing courses with the University of the Third Age. One person was having her Recognised Current Competency assessed with a view to proceeding to a child care qualification. Another was beginning a course at the University of Tasmania. All these people believed that online experience was relevant and helpful to people doing training, educational courses, or skills and hobby classes.

Some of the older people who use the Online Access Centres got involved in community efforts required to keep them viable. The centre at Sheeplands produces the community newspaper which helps finance the centre. Older people contribute articles and one helps with the word processing. Networks formed in this way reflect the formation of social capital. Social capital forms at the micro-level of social relations, through increasing trust, community spirit, and community hopes (Falk & Harrison 1998; Falk & Kilpatrick 2000). The survey's questions about users' perceptions of their communities were answered positively by a majority of respondents, which is in keeping with traditional rural values and strong identification with community. There was a significant correlation between very positive answers to questions about the personal benefits of online interaction (including improved communication skills, increased levels of confidence) and very positive answers to the questions about community participation. This suggests that use of the centres and the technology may be contributing to rural social capital, the creation and expenditure of which:

> *[B]uilds self-determination and sustainability and offers an alternative to the continued reliance on government-run welfare programs which create a syndrome of dependency.* (Rifkin 1999)

The community online centres may have an intervention role to play in the boosting of community spirit and the energising of local educational, economic and cultural initiatives.

Information and communications technology initiatives may reduce the negative impact of services curtailment that has occurred in these rural communities. Access and equity problems for rural communities need to be addressed if this is to continue. Free online centres are not available everywhere. The availability of reliable telephone connections and the cost compared to that for urban Australians is frequently offered as the main reason why people in rural areas do not consider having personal Internet access.

4.5 Summary

Community-based Online Access Centres are a significant step in addressing the problem of access to computers for older rural people in Tasmania. Continuing barriers to access include lack of confidence and the need for continuing skills-learning support, both of which may be associated with limited literacy skills. Lack of transport is a practical barrier for some. Other barriers may have their roots in traditional rural values. A degree of suspicion and disparagement towards technology persists in rural areas.

The characteristics of the communities at Riverlands, Mountainlands, and Sheeplands provide people with differing literacy practices and may predispose them to a greater or lesser degree towards acceptance of and interaction with new technologies. Online interaction is itself a new literacy practice.

Although there were often difficulties learning new computer literacy skills, a significant number of respondents to the survey reported a belief that their communication skills improved as a result of online experience.

Interaction with information and communications technology has had a positive impact on the lives of these older rural Tasmanians. There is evidence that these people have gained a new awareness of their potential as learners.

Networks formed through interaction at and on behalf of the Online Access Centres may be a crucial element in accruing social capital.

Chapter 5: Conclusion

Outcomes of the research show:

- Access to online technology gives older rural people opportunities to improve their communication skills, develop a new awareness of their potential as learners, and engage in self-development.
- There are barriers to over-55s' access to computers. These include transport and access costs, attitudinal factors which may be related to limited literacy practices in a community, limited literacy skills in some individuals, and lack of confidence. The last two may be overcome with appropriate training assistance.
- The positive outcomes as a result of online interaction include an extension of social practices, including literacy and numeracy practices.
- Networks formed through the use of online access centres and interaction with online technology may be a crucial element of social capital. These initiatives and others involving information and communications technology may reduce the negative impact of services curtailment that has occurred in these rural communities

Literacy is a social practice and learning to deal with change is an important part of literacy learning. Change and language are interconnected, one informing the other. The results of this research project suggest that these ageing rural communities are better placed to deal with social and economic transition because of their interaction with online technology.

References

Anstey, M., & Bull, G. 1999. 'Communicating literacies: How community affects literacy practice'. Centre for Literacy and Children's Literature Education and Research, University of Southern Queensland. http://www.btr.qld.edu.au/news.htm (September 1999).

Australian Bureau of Statistics, 1995. *Social Trends*. Australian Government Publishing Service, Canberra.

Australian Bureau of Statistics, 1996. *Aspects of literacy: assessed skill levels*. Australian Government Publishing Service, Canberra.

Australian Bureau of Statistics, 1999. *Older People, Australia*. Australian Government Publishing Service, Canberra.

Booth, A. 1998. 'Super seniors', *Australian Net Guide*, vol.3, no.5, pp.58-64.

Bruce, D. 1998. 'Building social capital and community learning networks in community Internet access centres', *Learning Communities, Regional Sustainability and the Learning Society: Conference Proceedings*, Vol. 1. Centre for Research and Learning in Regional Australia (CRLRA), Launceston, pp. 45-54.

Colman, H. 1999. *An evaluation of the opportunities and limits for integrating new learning technologies into Tasmanian Adult Literacy and Basic Education programs*, TAFE Tasmania, Hobart.

Crombie, A. 1999. 'Literacy skills and older Australians', *Literacy Link*, September 1999.

Fairclough, N. 1989. *Language and power*. Longman, London.

Fairclough, N. 1992. *Discourse and social change*. Polity Press, Cambridge.

Falk, I., & Harrison, L. 1998. 'Community learning and social capital: "Just having a little chat".' *Journal of Vocational Education and Training*, vol.50, no.4, pp.609-627.

Falk, I. & Kilpatrick, S. 2000. 'What is social capital? A study of a rural community', *Sociologia Ruralis*, 1 (40).

Flynn, M.K. 1996. 'Plugged-in seniors', *U.S. News & World Report*. June 10, 1996.

Gee, J. 1999. *An introduction to discourse analysis*. Routledge, London.

Grace, M. 1998. 'Using communication and information technologies to empower women in rural communities', *Learning Communities, Regional Sustainability and the Learning Society: Conference Proceedings*, Vol. 1. Centre for Research and Learning in Regional Australia (CRLRA), Launceston, pp. 150-158.

Gregoire, R., Bracewell, R., & Laferriere, T. 1996. 'The contribution of new technologies to learning and teaching in elementary and secondary schools – documentary review'. Collaboration of Laval University and McGill University. Web Site: http:/www.tact.fse.ulaval.ca/fr/html/impactnt.html (August 1999).

Holmquist, D., & Juricek, L. 1994. 'Welcoming seniors to the computer age', *The Vocational Education Journal*, vol.69, no.6, pp.24-26.

Kaplan, N. 1995. 'E-literacies', *CMC (Computer-Mediated Communication Magazine)*, vol.2, no.3, p.11.

Lankshear, C., & Peters, M. 1995. 'Critical literacy in cyberspace', *Critical Forum*, vol.4, no.3, pp.22-35.

Lensch, J.E. 1997. 'A high-tech magnet for seniors'. *Educational Leadership*, vol. 54, no. 5, pp. 64-67.

Lincoln, Y.S. & Guba, E.G. 1985. *Naturalistic Inquiry*. Sage, Beverly Hills.

Media Report, 12 Aug. 1999. ABC Radio National. Interview with Brett Wayn from America Online (AOL) and Jon Casimir from *The Sydney Morning Herald*.

Moore, P. 1996. 'Reading and writing the Internet'. *Australian Journal of Language and Literacy*, vol. 19, no. 4, pp. 317-329.

National Centre for Vocational Education Research (NCVER) 1997. *VET Statistics – at a glance 1997 – Tasmania summary*, http://www.ncver.edu.au/statistics/vet/ann97/vet_g_19.htm (December 1999).

Noer, M. 1995. 'Senior cybernauts', Forbes, Sept. 25, 1995.

Patton, M.Q. 1990. *Qualitative Evaluation and Research Methods*. 2nd ed., Sage, Newbury Park.

Post, J.A. 1996. 'Internet resources on aging: seniors on the Net', *The Gerontologist*, vol.36, no.5, pp. 565-570.

Rifkin, J. 1999. 'Work, social capital, and the rebirth of the civil society: a blueprint for a new third sector politics', Parliamentarians – NGO Conference, Strasbourg, 31/5 – 1/6 1999. Web site http://stars.coe.fr/Dossiers/Societe/E_Jeremy Rifkin.htm (September 1999).

Siegel, J. 1999. 'Aging into the 21st century'. Special Report. Administration on Aging, U.S. Department of Health & Human Services, http://www.aoa.dhhs.gov/aoa/stats/aging21/default.htm (December 1999).

Simon, J.H. 1998. 'The Internet: empowering older Americans', Testimony before the Senate Special Committee on Aging, http://www.microsoft.com/seniors/contents/speeches98/testimony_j.hurley.asp (July 1999).

Swindell, R., & Vassella, K. 1999. 'Older learners online: an evaluation of Internet courses for isolated older persons', Griffith University, Brisbane, online at http://www.u3aonline.org.au/AA_entire_report.pdf (August 1999).

Tasmanian Communities Online Project, 2000. Web site http://www.tco.asn.au/ (January 2000).

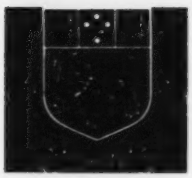
Tasmanian Government, 1999. http://www.dch.tas.gov.au/moreinfo/more_about_tas/demography/12.html (October 1999).

Todd, R. 1998. 'WWW, critical literacies and learning outcomes". *Teacher Librarian*, vol. 26, i. 2, p.16.

University of Regina, Canada. 1997. 'Older Adults and Learning Technologies Project'. http://www.uregina.ca/extnsion/seniors.html (July 1999).

Wilcox, M.D. 1995. 'Tapping into the power of computers: on-line and off, seniors find increasing benefits'. *Kiplinger's Personal Finance Magazine*, vol.49, no.6, pp.110-111.

Appendix: Survey Form



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Seniors Online Survey

Please indicate your level of agreement or disagreement with the following statements by circling the appropriate response of either

SA = Strongly Agree
A = Agree
NS = Not Sure or Don't Know
D = Disagree
SD = Strongly Disagree

AS A RESULT OF MY ONLINE EXPERIENCE:

1	My communication skills have improved.	SA	A	NS	D	SD
2	I have a group of people to interact with via email.	SA	A	NS	D	SD
3	I feel more connected to the world.	SA	A	NS	D	SD
4	I participate more in community activities.	SA	A	NS	D	SD
5	I have become a more confident person.	SA	A	NS	D	SD
6	I have improved my spelling ability.	SA	A	NS	D	SD
7	My spelling ability has not changed.	SA	A	NS	D	SD
8	I am more knowledgeable about community activities.	SA	A	NS	D	SD
9	I see opportunities to develop my leisure activities.	SA	A	NS	D	SD
10	I am much more critical of what I read.	SA	A	NS	D	SD
11	I am more sensitive to insincere material.	SA	A	NS	D	SD
12	I would consider myself as a person who is confident doing tasks which involve using numbers.	SA	A	NS	D	SD
13	I feel more confident using numbers.	SA	A	NS	D	SD

14	My knowledge of punctuation has increased.	SA	A	NS	D	SD
15	I see opportunities to develop my employability.	SA	A	NS	D	SD
16	I see opportunities to develop my job-related skills.	SA	A	NS	D	SD
17	I am able to recognise when someone is trying to manipulate my feelings in some way.	SA	A	NS	D	SD
18	I am able to recognise information that is biased.	SA	A	NS	D	SD
19	My general health has improved.	SA	A	NS	D	SD

THE FOLLOWING STATEMENTS REFER TO YOUR ONLINE EXPERIENCE:

20	When I began the online experience, I was nervous when using the computer.	SA	A	NS	D	SD
21	From the beginning of the online experience, I was confident in using computers.	SA	A	NS	D	SD
22	At the moment I would consider myself to be comfortable in using a computer.	SA	A	NS	D	SD
23	I am still nervous in using a computer.	SA	A	NS	D	SD
24	I would say that I was a beginner when I started to use the Net.	SA	A	NS	D	SD
25	When I started using the Net I had trouble with the terms I had to learn.	SA	A	NS	D	SD
26	I am still having trouble with some of the terms.	SA	A	NS	D	SD

PLEASE CIRCLE THE APPROPRIATE RESPONSE:

27	At the moment, I am doing some training/educational course/skills or hobby class.	YES	NO

IF YOU ANSWERED 'YES' TO QUESTION 27, PLEASE CIRCLE THE APPROPRIATE RESPONSE:

27a	The online experience has helped me in my training/educational course/skills or hobby class.	SA	A	NS	D	SD
27b	The online experience was relevant to the training that I am doing.	SA	A	NS	D	SD
27c	People doing training need to have online computer skills.	SA	A	NS	D	SD

THE FOLLOWING STATEMENTS REFER TO THE COMMUNITY YOU LIVE IN:

28	In this community people pull together in difficult times.	SA	A	NS	D	SD
29	Community groups here work well together.	SA	A	NS	D	SD
30	People here usually support activities organised by community groups.	SA	A	NS	D	SD
31	In this community there's plenty to get involved in for people of my age.	SA	A	NS	D	SD
32	This is a good area to bring up children.	SA	A	NS	D	SD
33	This is a good area for people to retire to.	SA	A	NS	D	SD
34	I feel safe in this community.	SA	A	NS	D	SD
35	I know the people to talk to if I need help with something.	SA	A	NS	D	SD

PERSONAL DETAILS:

1 Please circle the appropriate response.

I am UNDER 55 years of age. YES

I am 55 or over. YES

2 Where do you live? (City, town, or district) _____

3 How many years of school did you complete? _____

3 Please circle the appropriate response.

Have you completed:

TAFE course	YES	NO
University course	YES	NO
Other type of course	YES	NO

(Please give details)

_____

5 What do you MAINLY use the Internet for?

I use the Internet for:

Email	YES	NO
Looking for information	YES	NO
Chat	YES	NO
Games	YES	NO
Other	YES	NO

(Please give details)

_____

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